| Inde | x of Cl | aims |
|------|---------|------|
|      |         |      |

| Applicant(s)       |
|--------------------|
| EL-SHOUBARY ET AL. |
| Art Unit           |
|                    |

Edward M. Johnson

1754

| <b>√</b> | Rejected |
|----------|----------|
| =        | Allowed  |

| - | (Through numeral)<br>Cancelled |
|---|--------------------------------|
| ÷ | Restricted                     |

| N | Non-Elected  |
|---|--------------|
| ı | Interference |

| Α | Appeal   |
|---|----------|
| 0 | Objected |

| Cla      | aim                              | Date         |          |                |                                                  |          |                                                  |              |              |              |
|----------|----------------------------------|--------------|----------|----------------|--------------------------------------------------|----------|--------------------------------------------------|--------------|--------------|--------------|
|          |                                  | _            |          | -              | 1                                                |          | Π                                                | Π            |              | T            |
| Final    | Original                         | < < 11/20/03 |          |                |                                                  |          |                                                  |              |              |              |
|          | 1<br>2<br>3<br>4<br>5<br>6<br>7  | V            | $\vdash$ |                | +                                                | +        | +                                                | $\vdash$     | +            | +            |
|          | 2                                | V            | †        | 1              | 1-                                               | 1        |                                                  |              | T            | $\vdash$     |
|          | 3                                | +            | 1        | <del> </del>   |                                                  |          | 1                                                | +            | +            | +            |
|          | 4                                | N            | $\vdash$ | +              | +                                                | ╁        | $\vdash$                                         | 1            | -            | +            |
| <b>—</b> | 5                                | N            | +        |                | -                                                |          | +                                                | +            | t            | +            |
|          | 6                                | ┿            | -        | <del> </del> - | ╁╌                                               | $\vdash$ | ╁                                                | +            | ╁            | +            |
| <b> </b> | 7                                | ┼┈           | ╁        | +              | +                                                |          | +-                                               | ╁            | +-           | <del> </del> |
| -        | 8                                | $\vdash$     | ┿        | +              | +                                                | 1        |                                                  | $\vdash$     | +            | +            |
| -        | 9                                | $\vdash$     | +-       | ╁┈             | $\vdash$                                         | H        | ╁╌                                               | 1            | 1            |              |
|          | 8<br>9<br>10                     | =            | ╁╌       | <del> </del>   | +-                                               | 1        | $\vdash$                                         | 1            |              | -            |
|          | 11                               | -            | $\vdash$ |                |                                                  | T        | -                                                | 1            | -            | 1            |
|          | 12                               | <b>†</b>     | $\vdash$ |                | t                                                | ┼        | †                                                | $\vdash$     | -            | t            |
|          | 13                               |              | 1        |                | ┼~                                               | 1        |                                                  | T            |              | <del> </del> |
|          | 14                               |              | t        |                |                                                  |          | 1                                                | T            | <b> </b>     |              |
|          | 11<br>12<br>13<br>14<br>15<br>16 | $\vdash$     | T        |                | 1                                                | 1        |                                                  | 1-           | t            |              |
|          | 16                               | T            | Г        |                |                                                  |          |                                                  | Г            | 1            | 1            |
|          | 17                               |              |          |                |                                                  |          |                                                  | 1            |              |              |
|          | 18                               | 1            |          |                |                                                  |          |                                                  | 1            |              |              |
|          | 19                               |              |          |                |                                                  |          |                                                  |              |              |              |
|          | 17<br>18<br>19<br>20<br>21       | =            |          |                |                                                  |          |                                                  |              |              |              |
|          | 21                               | <u> </u>     | Ĺ.,      |                |                                                  |          |                                                  | L            | L.           |              |
|          | 22                               | =            |          |                |                                                  | _        | <u> </u>                                         | L            |              |              |
|          | 23                               | ļ.,          |          |                |                                                  | <u> </u> | _                                                | _            |              |              |
| ļ        | 24                               | 1            |          | <u> </u>       | <u> </u>                                         | ļ        | _                                                | _            |              |              |
|          | 25                               | 1            | <u> </u> | <u> </u>       | ⊢                                                |          |                                                  | ┡            | <u> </u>     |              |
|          | 26<br>27                         | =            | _        | $\vdash$       | ⊢                                                | -        | $\vdash$                                         |              | ₩            | $\vdash$     |
| }        | 20                               | ₩            |          | -              | ├                                                | -        |                                                  | ┝            |              |              |
| -        | 20                               | ₩            | ⊢        | <del> </del>   |                                                  | -        | <del> </del>                                     |              | -            | Н            |
|          | 20                               | Н            |          | ├-             | ⊢                                                | -        |                                                  |              | -            | $\vdash$     |
| $\vdash$ | 31                               | +            |          |                |                                                  | ⊢        |                                                  | ١.           | <u> </u>     | H            |
| <u> </u> | 28<br>29<br>30<br>31<br>32<br>33 | +            |          | -              |                                                  |          | ┢                                                |              | ┢            | Н            |
| -        | 33                               | Н            | -        |                | ╁                                                |          | $\vdash$                                         | $\vdash$     | $\vdash$     | ┼╌┤          |
| <u> </u> | 34                               | ╁            | -        |                | $\vdash$                                         |          | ├                                                | <del> </del> |              | $\vdash$     |
| H        | 35                               | =            | 1        |                | <del>                                     </del> |          | <del> </del>                                     | <del> </del> | <del> </del> | Н            |
|          | 35<br>36                         |              |          | -              |                                                  |          |                                                  | -            | t            | $\vdash$     |
|          | 37                               |              |          |                |                                                  | -        | <del>                                     </del> |              |              | $\vdash$     |
|          | 37<br>38                         | $\Box$       |          |                | <b></b>                                          |          |                                                  |              |              |              |
|          | 39                               |              |          | _              |                                                  |          |                                                  |              | 1            | П            |
|          | 40                               |              |          | L              |                                                  |          |                                                  |              |              |              |
|          | 41                               |              |          |                |                                                  |          |                                                  |              |              |              |
| L        | 42<br>43                         |              |          |                |                                                  |          |                                                  |              |              |              |
| L        | 43                               | L            | L        | <u> </u>       | _                                                |          | _                                                | L            |              |              |
|          | 44                               | <u> </u>     | <u> </u> |                | ļ                                                | <u> </u> |                                                  |              | _            | Ш            |
|          | 45                               | $oxed{oxed}$ | <u> </u> | <u>_</u>       | _                                                | Щ        | _                                                | <b> </b>     |              | <u> </u>     |
|          | 46                               | <u> </u>     |          | _              | ļ                                                | <u> </u> |                                                  |              |              | Щ            |
| $\vdash$ | 47                               | $\vdash$     |          |                | <u> </u>                                         |          |                                                  |              |              | $\vdash$     |
| <b></b>  | 48<br>49                         |              | _        | <u> </u>       | L.,                                              |          |                                                  |              | _            |              |
| $\vdash$ | 50                               | <u> </u>     |          |                |                                                  | -        |                                                  |              |              | ⊢-∤          |
| $\sqcup$ | 50                               |              |          |                |                                                  |          |                                                  |              |              | L            |

| Claim                                            |                |          |          |          |          | Dat      | e        |              |          |          |
|--------------------------------------------------|----------------|----------|----------|----------|----------|----------|----------|--------------|----------|----------|
| Final                                            | Original       |          |          |          | İ        |          |          |              |          |          |
| -                                                | 51             | -        |          |          | ╁╌       | 1        | -        | -            | $\vdash$ | $\vdash$ |
|                                                  | 52             | $\vdash$ | _        |          |          |          | -        | <del> </del> |          | 1        |
|                                                  | 53             |          |          | T        |          |          |          | $\vdash$     | t —      | $\vdash$ |
|                                                  | 54             |          |          |          | T        |          |          |              |          | T        |
|                                                  | 55             |          |          |          |          |          |          |              |          |          |
|                                                  | 56             |          |          |          | <u> </u> |          |          |              | <u> </u> |          |
|                                                  | 57             |          |          |          |          |          |          | _            | _        | _        |
| -                                                | 58<br>59       |          |          |          |          | ــــ     | ļ        | -            | <u> </u> | -        |
| J                                                | 60             |          |          | -        |          | -        | -        |              |          | Н        |
| <u> </u>                                         | 61             |          | —        |          |          | -        | $\vdash$ |              | ┢        | $\vdash$ |
|                                                  | 62             |          | _        | ┢        |          | -        |          |              | -        | $\vdash$ |
|                                                  | 63             |          | _        | $\vdash$ | ┢        |          |          |              |          | H        |
|                                                  | 64             | _        |          |          | i        |          | $\vdash$ |              | _        | Н        |
|                                                  | 65             |          |          |          |          |          |          |              |          | $\Box$   |
|                                                  | 66             |          |          |          |          |          |          |              |          |          |
|                                                  | 67             |          |          |          |          | L        |          | L.,          |          |          |
| L                                                | 68             |          |          | <u> </u> |          | <u> </u> | <u> </u> |              |          | Ш        |
|                                                  | 69             |          |          | ļ        |          |          |          | L            |          | L.,      |
|                                                  | 70<br>71       |          |          |          |          | _        | _        | _            |          | Щ        |
|                                                  | 72             |          |          | _        |          | $\vdash$ |          | _            |          |          |
|                                                  | 73             |          |          |          |          |          |          | -            | $\vdash$ |          |
| -                                                | 72<br>73<br>74 |          |          |          | _        |          |          |              | $\vdash$ | H        |
|                                                  | 75             |          |          |          |          |          |          |              | $\vdash$ | $\vdash$ |
|                                                  | 76<br>77       |          |          |          |          |          |          |              |          | _        |
|                                                  | 77             |          |          |          |          |          |          |              |          |          |
|                                                  | 78             | _        |          |          |          |          |          |              | L.,      |          |
|                                                  | 79             | $\dashv$ |          |          |          | _        |          |              |          |          |
| <u> </u>                                         | 80             | _        |          |          |          |          |          |              |          | Ш        |
|                                                  | 81<br>82       | $\dashv$ |          |          |          |          |          |              |          | Н        |
| $\vdash$                                         | 83             |          |          |          |          |          |          |              |          |          |
|                                                  | 84             | $\dashv$ | -        | _        |          |          |          |              |          |          |
|                                                  | 85             | $\dashv$ | _        |          |          |          |          |              |          | ├╌┤      |
|                                                  | 86             |          | _        |          |          |          |          | _            |          | Н        |
|                                                  | 87             |          |          |          |          |          |          |              |          | П        |
|                                                  | 88             |          |          |          |          |          |          |              |          |          |
|                                                  | 89             |          |          |          |          |          |          |              |          |          |
|                                                  | 90             |          |          |          |          |          |          |              |          |          |
|                                                  | 91             | _        |          |          |          |          |          | _            |          |          |
|                                                  | 92<br>93       |          |          | -        |          | $\Box$   | _        | _            |          |          |
| $\vdash$                                         | 93             | $\dashv$ | - +      |          |          |          | _        | -            |          |          |
| <del>                                     </del> | 95             | $\dashv$ | $\dashv$ |          |          |          |          | $\dashv$     |          | $\dashv$ |
|                                                  | 96             |          | $\dashv$ |          |          |          |          |              |          | $\dashv$ |
| $\vdash$                                         | 97             |          | -        |          |          |          | $\dashv$ |              |          | $\dashv$ |
|                                                  | 98             | $\neg$   | $\neg$   | $\dashv$ | $\neg$   | $\neg$   |          |              |          | $\dashv$ |
|                                                  | 99             |          |          |          | _        |          |          |              |          |          |
|                                                  | 100            |          | _]       | $\Box$   | $\Box$   |          |          |              |          |          |
|                                                  |                |          |          |          |          | -        |          |              |          | -        |

| Claim         Date           Tell Septical         Image: Control of the c                                                                 |     | J    | L         | 1.       |                                                  |          |              |          |          | J        |           |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|------|-----------|----------|--------------------------------------------------|----------|--------------|----------|----------|----------|-----------|
| E         E         E         E         E         E         E         E         E         E         E         E         E         E         E         E         E         E         E         E         E         E         E         E         E         E         E         E         E         E         E         E         E         E         E         E         E         E         E         E         E         E         E         E         E         E         E         E         E         E         E         E         E         E         E         E         E         E         E         E         E         E         E         E         E         E         E         E         E         E         E         E         E         E         E         E         E         E         E         E         E         E         E         E         E         E         E         E         E         E         E         E         E         E         E         E         E         E         E         E         E         E         E         E         E         E         E                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Cla | aim  | Γ         |          |                                                  |          | Dat          |          |          |          |           |
| 101                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |     |      |           | T        | T                                                | T        | Ī            | Ī        | Γ        | Π        | П         |
| 101                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 55  | i.   |           |          |                                                  | 1        |              |          |          |          |           |
| 101                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | ίĒ  | l ig |           |          |                                                  |          |              |          |          |          |           |
| 102                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |     | 0    |           | ļ        |                                                  |          |              |          |          |          |           |
| 102                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |     | 101  |           |          |                                                  |          | 1            | T -      |          |          |           |
| 104                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |     | 102  |           |          |                                                  |          |              | Γ        | _        |          |           |
| 105                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |     | 103  |           |          |                                                  |          |              | Γ        | 1        |          |           |
| 106                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | - " | 104  |           |          |                                                  |          |              |          |          |          |           |
| 107                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |     | 105  | L_        |          |                                                  |          |              |          |          |          |           |
| 108   109   110   111   112   113   114   115   116   117   118   119   120   121   122   123   124   125   126   127   128   129   130   131   132   133   134   135   136   137   138   139   140   141   142   143   144   145   144   145   144   145   144   145   144   145   144   145   144   145   144   145   144   145   144   145   144   145   144   145   144   145   144   145   144   145   144   145   144   145   144   145   144   145   144   145   144   145   144   145   144   145   144   145   144   145   144   145   144   145   144   145   144   145   144   145   144   145   144   145   145   144   145   145   144   145   145   144   145   145   144   145   145   144   145   145   144   145   145   144   145   145   144   145   145   144   145   145   144   145   145   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146   146 |     | 106  |           |          | L                                                | <u> </u> |              | <u> </u> |          |          |           |
| 109                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |     | 107  |           |          |                                                  | ļ        | <u> </u>     |          | ļ        |          |           |
| 110 111 112 113 114 115 116 117 118 119 120 121 121 122 123 124 125 126 127 128 129 130 131 131 132 133 134 135 136 137 138 139 140 141 141 142 143 144 145                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |     | 108  |           |          | Ļ.,                                              | <u> </u> | <u> </u>     | Ļ.,      | _        | _        | Ш         |
| 111                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |     | 109  | _         |          | _                                                |          | $\vdash$     | <u> </u> |          | _        | Ш         |
| 112                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |     | 110  | _         | ļ        | <u> </u>                                         | 1        | -            | ╙        | _        |          | Щ.        |
| 113                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |     | 111  |           |          | -                                                | -        | ļ.           |          |          | <u> </u> | <b>  </b> |
| 114         115         116         117         118         119         120         121         122         123         124         125         126         127         128         129         130         131         132         133         134         135         136         137         138         139         140         141         142         143         144         145                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |     | 112  | _         |          |                                                  |          | ┡-           | <u> </u> | _        |          | Ш         |
| 115         116         117         118         119         120         121         122         123         124         125         126         127         128         129         130         131         132         133         134         135         136         137         138         139         140         141         142         143         144         145                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |     | 113  | _         | $\vdash$ |                                                  | ├—       | ⊢            | $\vdash$ |          |          | $\vdash$  |
| 116                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |     | 114  |           |          |                                                  |          | ├            | -        | -        |          | $\vdash$  |
| 118                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | -   | 110  | $\vdash$  | -        | -                                                |          | $\vdash$     |          | -        |          |           |
| 118                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |     | 117  |           |          |                                                  |          | ├-           | -        | -        |          | $\vdash$  |
| 119 120 121 122 123 123 124 125 126 127 128 129 130 131 132 133 134 135 136 137 138 139 140 141 142 143 144                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |     | 112  |           |          | $\vdash$                                         |          |              | $\vdash$ | -        |          | H         |
| 120 121 122 123 124 125 126 127 128 129 130 131 132 133 134 135 136 137 138 139 140 141 142 143 144 145                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |     | 110  |           | -        |                                                  | -        | -            |          |          |          | Н         |
| 121<br>122<br>123<br>124<br>125<br>126<br>127<br>128<br>129<br>130<br>131<br>132<br>133<br>133<br>134<br>135<br>136<br>137<br>138<br>139<br>140<br>141<br>141<br>142<br>143<br>144                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |     | 120  | _         |          |                                                  | -        |              | $\vdash$ |          | $\vdash$ |           |
| 122<br>123<br>124<br>125<br>126<br>127<br>128<br>129<br>130<br>131<br>132<br>133<br>133<br>134<br>135<br>136<br>137<br>138<br>139<br>140<br>141<br>142<br>143<br>144                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |     | 121  | $\vdash$  | -        | H                                                |          |              | $\vdash$ |          |          |           |
| 123                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |     |      |           | -        | <del>                                     </del> |          |              |          |          |          | H         |
| 124<br>125<br>126<br>127<br>128<br>129<br>130<br>131<br>132<br>133<br>134<br>135<br>136<br>137<br>138<br>139<br>140<br>141<br>141<br>142<br>143<br>144<br>145                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |     | 123  | _         |          |                                                  |          |              |          |          | -        | H         |
| 125<br>126<br>127<br>128<br>129<br>130<br>131<br>132<br>133<br>134<br>135<br>136<br>137<br>138<br>139<br>140<br>141<br>141<br>142<br>143<br>144<br>145                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |     | 124  |           |          |                                                  |          |              |          |          |          |           |
| 126                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |     | 125  |           |          |                                                  |          | _            | <u> </u> |          |          | П         |
| 127<br>128<br>129<br>130<br>131<br>132<br>133<br>134<br>135<br>136<br>137<br>138<br>139<br>140<br>141<br>141<br>142<br>143<br>144                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |     | 126  |           |          |                                                  |          |              |          |          |          |           |
| 129<br>130<br>131<br>132<br>133<br>134<br>135<br>136<br>137<br>138<br>139<br>140<br>141<br>141<br>142<br>143<br>144<br>145                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |     | 127  |           |          |                                                  |          |              |          |          |          |           |
| 130                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |     | 128  |           |          |                                                  |          |              |          |          |          |           |
| 131<br>132<br>133<br>134<br>135<br>136<br>137<br>138<br>139<br>140<br>141<br>141<br>142<br>143<br>144<br>145                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |     | 129  |           |          |                                                  |          |              |          |          |          |           |
| 132<br>133<br>134<br>135<br>136<br>137<br>138<br>139<br>140<br>141<br>142<br>143<br>144<br>145                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |     | 130  |           |          |                                                  |          |              |          |          |          |           |
| 133<br>134<br>135<br>136<br>137<br>138<br>139<br>140<br>141<br>142<br>143<br>144<br>145                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |     | 131  |           |          | <u> </u>                                         |          | _            | _        | :        | _        |           |
| 134<br>135<br>136<br>137<br>138<br>139<br>140<br>141<br>142<br>143<br>144<br>145                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |     | 132  |           |          |                                                  |          |              |          |          |          |           |
| 135<br>136<br>137<br>138<br>139<br>140<br>141<br>142<br>143<br>144<br>145                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |     |      |           |          |                                                  |          |              |          |          |          | Щ.        |
| 136<br>137<br>138<br>139<br>140<br>141<br>142<br>143<br>144<br>145                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |     |      |           | _        |                                                  | _        | <u> </u>     | _        |          |          | $\square$ |
| 137<br>138<br>139<br>140<br>141<br>142<br>143<br>144<br>145                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |     |      |           |          |                                                  |          | ļ            |          |          |          |           |
| 138<br>139<br>140<br>141<br>142<br>143<br>144<br>145                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |     | 135  |           |          |                                                  |          |              |          |          |          |           |
| 139<br>140<br>141<br>142<br>143<br>144<br>145                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |     |      |           |          | _                                                |          |              |          |          |          |           |
| 140                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |     | 130  | _         |          |                                                  |          | <u> </u>     | -        | $\dashv$ | _        |           |
| 141<br>142<br>143<br>144<br>145                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |     | 140  |           |          |                                                  |          | <del> </del> | _        | $\dashv$ |          |           |
| 142<br>143<br>144<br>145                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |     |      |           |          |                                                  | -        | $\vdash$     |          | $\dashv$ |          |           |
| 143<br>144<br>145                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |     |      | $\exists$ | -        |                                                  |          |              |          |          | —        |           |
| 144                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |     |      |           |          | H                                                |          | -            | $\neg$   |          | _        |           |
| 145                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |     | 144  | $\neg$    | -        |                                                  |          |              | $\vdash$ |          | $\dashv$ | $\dashv$  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |     |      |           | $\neg$   |                                                  |          | -            |          |          | $\neg$   | $\dashv$  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |     |      | $\neg$    | -        |                                                  | _        |              |          |          | $\neg$   |           |
| 147                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |     | 147  | $\neg$    | _        |                                                  |          |              |          |          |          | $\neg$    |
| 148                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |     | 148  |           | $\neg$   |                                                  |          |              | T        |          | $\neg$   |           |
| 149                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |     | 149  |           |          |                                                  |          |              |          |          |          |           |
| 150                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |     |      |           |          |                                                  |          |              |          |          |          |           |